



School of Agriculture

Tony Brannon, Dean
 103 South Oakley Applied Science Building
 270-809-3328



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Broad opportunities for young people to prepare for agricultural and related careers are offered by the School of Agriculture. The School of Agriculture offers three undergraduate degree programs: a Bachelor of Science in Agriculture, a Bachelor of Science with a major in Agriculture, and an Associate of Science with emphasis in agricultural science and technology. Minors are available in agriculture and in equine science.

The School of Agriculture includes the Department of Agricultural Science, the Department of Animal and Equine Science, and the Department of Animal Health Technology and Pre-Veterinary Medicine. Agricultural facilities include the farm laboratory complex, the West Kentucky Livestock and Exposition Center, and the Breathitt Veterinary Center. The horse, dairy, beef, swine, agronomy, and horticulture facilities are a part of the farm-laboratory complex. The West Kentucky Livestock and Exposition Center is utilized for equine and rodeo classes, contests, field days, judging contests, clinics, and numerous agricultural activities.

MSU's Breathitt Veterinary Center (BVC), located in Hopkinsville, Kentucky, has as its primary mission the provision of diagnostic data; however, its mission also includes instruction and research. The laboratory is accredited through the American Association of Veterinary Laboratory Diagnosticians. The center's facilities and personnel provide learning experiences for students in the animal health technology program. The BVC also conducts research dealing with infectious diseases of food animals.

Department of Agricultural Science
 212 Oakley Applied Science South
 270-809-3327

Head: Dwayne Driskill. **Faculty:** Anderson, Brannon, Driskill, Ferguson, Handayani, Kaiser, Mikulcik, Morgan, Morrow, Payne, Vincent, Williams.

The Department of Agriculture Science offers a Bachelor of Science in Agriculture Degree with the following options: (1) agronomy, (2) agriculture science/agriculture technology option, (3) agricultural education, (4) agribusiness, (5) agriculture systems technology, and (6) horticulture. The agriculture science/agriculture technology option includes emphases in emerging technology, communications/public relations, environmental/health, agriculture public service/leadership, and agriculture technology.

Facilities for agriculture science include classrooms and labs in Oakley Applied Science South, Howton Agriculture Engineering Building, the West Farm, the Pullen Farm Complex with three greenhouses and environmental center lab, and the agriculture systems technology farm lab.

AREA:
Agricultural Science/AgriScience
Technology Option

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements 46 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

- Communication and Basic Skills:*
COM 161 Introduction to Public Speaking
- Science and Mathematics:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
- University Studies Electives:*
CHE 106 Introductory Chemistry II
or
GSC 199 Earth Science

Agriculture Core Courses 25 hrs

- AGR 099 Freshman Orientation
- AGR 100 Animal Science
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 140 Plant Science
- AGR 170 Introduction to Agricultural Systems Technology
- AGR 199 Contemporary Issues in Agriculture
- AGR 250 Soil Science
- AGR 339 Computer Applications for Agriculture
- AGR 399 Professional Development Seminar I

AgriScience Technology Option 24 hrs

- AED 380 Agricultural Education Extension and Leadership
- AGR 377 Agriculture Safety
- AGR 433 Farm Management
and one of the following:
AGR 300 Principles of Animal Nutrition
AGR 301 Livestock Judging and Evaluation
AGR 302 Horse Science
AGR 311 Beef Science
AGR 312 Dairy Science
AGR 321 Poultry Science
AGR 326 Swine Science
and one of the following:
AGR 330 Principles of Agribusiness
AGR 333 Agribusiness Records and Analysis
AGR 337 Agricultural Sales and Merchandising
and one of the following:
AGR 360 Greenhouse Production and Management
AGR 461 Plant Propagation
AGR 542 Plant Breeding I
AGR 549 Weeds and Their Control

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one of the following:

AGR 372 Agricultural Metal Processes
AGR 379 Field Equipment Technology Management
AGR 470 Soil and Water Engineering
AGR 477 Agricultural Power Units
AGR 576 Agricultural Electrification Systems
AGR 577 Tractor Power Principles

and

AGR electives: 3 hrs¹

Required Support Courses 20-21 hrs

Choose one of the following support course emphases.

Emerging Technology Emphasis: 20 hrs

GSC 202 Introduction to Geographic Information Science
GSC 205 Image Analysis
GSC 561 Precision GIS/GPS Applications

Select three of the following:

AGR 439 Software Applications for Agriculture¹
or
AGR 539 Advanced Computer Applications for Agriculture¹
AGR 471 Applications in Precision Agriculture¹
AGR 571 Advanced Precision Agriculture¹
CSC 125 Internet and World Wide Web Technologies
GSC 521 Geographic Information Systems
TSM 120 Introduction to Telecommunications

Communications/Public Relations Emphasis: 21 hrs

JMC 168 Contemporary Mass Media
JMC 194 Newswriting
JMC 330 Mass Media Effects
JMC 391 Public Relations Principles
JMC 412 Writing for Public Relations
JMC 590 Mass Communications Law
AGR 585 Specialized Journalism/RTV¹
or
JMC 591 Advanced Public Relations

Environmental/Health Emphasis: 21 hrs

AGR 378 Agricultural Environmental Management Systems
CET 555 Environmental Regulatory Affairs
CET 587 Biosolids and Nutrient Management Systems
ENT 286 Introduction to Environmental
Engineering Technology
AGR/CET/OSH Electives: 9 hrs approved by advisor¹

Agriculture Public Service/Leadership Emphasis: 21 hrs

AED 583 Practicum in Agricultural Education, Extension,
and Public Service Leadership¹
AGR 488 Cooperative Education/Internship¹
AGR 489 Cooperative Education/Internship
Advisor approved Electives in AGR, AED, COM, CTE,
MGT, YNL: 12 hrs

Agricultural Technology Emphasis: 20 hrs

AGR 313 Livestock Production Management Systems
AGR 439 Software Applications for Agriculture
AGR 471 Applications in Precision Agriculture
AGR 499 Leadership/Professional Development Seminar II
AGR 537 Seminar in Agricultural Business Systems
AGR 538 Seminar in Production Agricultural Systems
AGR 539 Advanced Computer Applications for Agriculture
AGR 547 Crop Management

Unrestricted Electives 4-5 hrs

Total Curriculum Requirements 120 hrs

¹These agriculture electives may be fulfilled by agriculture courses used in the chosen emphasis.

AREA:

**Agricultural Science/Agricultural Education/
Certification Option (Grades 5-12)**

**Bachelor of Science in Agriculture Degree
CIP 01.0000**

University Studies Requirements 46 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:

•**Communication and Basic Skills:**

COM 161 Introduction to Public Speaking¹

•**Science and Mathematics:**

BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra¹

•**Social Sciences:**

EDP 260 Psychology of Human Development

•**University Studies Electives:**

AGR 199 Contemporary Issues in Agriculture²
CHE 106 Introductory Chemistry II

or

GSC 199 Earth Science

Note: Certification requires a grade of *B* or better in one English composition course and a *C* or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Agriculture Core Courses 25 hrs

AGR 099 Freshman Orientation
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture²
AGR 250 Soil Science
AGR 339 Computer Applications for Agriculture¹
AGR 399 Professional Development Seminar I

Agricultural Education Option 24 hrs

AED 380 Agricultural Education, Extension, and Leadership
AED 583 Practicum in Agricultural Education, Extension,
and Public Service Leadership¹
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 251 Soil Science Laboratory
and
AGR 355 Soil Judging
or
AGR 455 Soil Management
AGR 300 Principles of Animal Nutrition
or
AGR 301 Livestock Judging and Evaluation
AGR 337 Agricultural Sales and Merchandising
or

- AGR 433 Farm Management
- AGR 360 Greenhouse Production and Management
- AGR 372 Agricultural Metal Processes

Required Support Courses 31 hrs

- AED 580 Methods of Teaching Agricultural Education¹
- CTE 501 Teaching through Application
- CTE 502 Instructional Media, Curricula and Assessment in CTE
- CTE 503 Planning and Implementing Instruction in CTE
- HEA 195 First Aid and Safety
- SEC 421 Student Teaching in Secondary School
- SED 300 Educating Students with Disabilities

Total Curriculum Requirements 123 hrs

¹With a grade of C or better.
²AGR 199 will fulfill both the agriculture core and university studies elective.

**AREA:
 Agricultural Science/Agribusiness Option**

**Bachelor of Science in Agriculture Degree
 CIP 01.0000**

University Studies Requirements 46 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

- Communication and Basic Skills:*
- COM 161 Introduction to Public Speaking
- Science and Mathematics:*
- BIO 101 Biological Concepts
- CHE 105 Introductory Chemistry I
- MAT 140 College Algebra
- Social Sciences:*
- ECO 230 Principles of Macroeconomics
- University Studies Electives:*
- ECO 231 Principles of Microeconomics
- FIN 230 Personal Finance

Agriculture Core Courses 25 hrs

- AGR 099 Freshman Orientation
- AGR 100 Animal Science
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 140 Plant Science
- AGR 170 Introduction to Agricultural Systems Technology
- AGR 199 Contemporary Issues in Agriculture
- AGR 250 Soil Science
- AGR 339 Computer Applications for Agriculture
- AGR 399 Professional Development Seminar I

Agribusiness Option 24 hrs

- AGR 233 Statistics for Food and Agriculture
- AGR 330 Principles of Agribusiness
- AGR 336 Agricultural Marketing and Price Analysis
- AGR 337 Agricultural Sales and Merchandising
- AGR 433 Farm Management
- AGR 531 Agricultural Finance
- AGR 535 Agricultural Policy
- AGR electives: 3 hrs

Required Support Courses 12 hrs

Choose one of the following support course emphases.

Economics/Finance Emphasis

- ACC 200 Principles of Accounting I
- AGR 536 Quantitative Methods for Agribusiness
- ECO 305 Money and Banking
- Approved upper-level, 3 hour business elective

Marketing/Management Emphasis

- ACC 200 Principles of Accounting I
- MGT 350 Fundamentals of Management
- MKT 360 Principles of Marketing
- Approved upper-level, 3 hour business elective

Unrestricted Electives 13 hrs¹

Total Curriculum Requirements 120 hrs

¹Students wishing to qualify for admission to Murray State's Master of Business Administration (MBA) program should chose the following courses as part of the Unrestricted Electives requirement: ACC 201, BPA 355, CIS 443, FIN 330, MAT 220 (this course will fulfill a University Studies Elective).

**AREA:
 Agricultural Science/
 Agricultural Systems Technology Option**

**Bachelor of Science in Agriculture Degree
 CIP 01.0000**

University Studies Requirements 47 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

- Communication and Basic Skills:*
- COM 161 Introduction to Public Speaking
- Science and Mathematics:*
- BIO 101 Biological Concepts
- CHE 105 Introductory Chemistry I
- MAT 130 Technical Math I
- University Studies Electives:*
- GSC 199 Earth Science
- or*
- PHY 130 General Physics I

Agriculture Core Courses 25 hrs

- AGR 099 Freshman Orientation
- AGR 100 Animal Science
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 140 Plant Science
- AGR 170 Introduction to Agricultural Systems Technology
- AGR 199 Contemporary Issues in Agriculture
- AGR 250 Soil Science
- AGR 339 Computer Applications for Agriculture
- AGR 399 Professional Development Seminar I

Agriculture Systems Technology Option 24 hrs

- AGR 371 Agricultural Buildings and Construction
- AGR 372 Agricultural Metal Processes
- AGR 377 Agriculture Safety
- AGR 477 Agricultural Power Units

or

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AGR 577 Tractor Power Principles
Approved agricultural systems technology electives: 9 hrs
AGR electives: 3 hrs

Support Courses 6-8 hrs

Select two of the following:

EMT 261 Introduction to Fluid Power Systems¹
ENT 111 Electric Systems
ENT 364 Introduction to Thermodynamics
ITD 101 Introduction to Design and Graphic Communication
ITD 104 CAD Application and Design Communication
ITD 304 Computer Graphics and Design¹
ITD 330 Machine Tool Processes
TSM 110 Electrical Systems

Unrestricted Electives 16-18 hrs

Total Curriculum Requirements 120 hrs

¹Preferred courses.

AREA:

Agricultural Science/Agronomy Option

Bachelor of Science in Agriculture Degree CIP 01.0000

University Studies Requirements 47 hrs

(see Chapter 4, University Studies Requirements)

University Studies selections must include:

•*Communication and Basic Skills:*

COM 161 Introduction to Public Speaking

•*Science and Mathematics:*

BIO 222 Botany: Plant Form and Function

CHE 105 Introductory Chemistry I

MAT 140 College Algebra

•*University Studies Electives:*

CHE 106 Introductory Chemistry II

GSC 199 Earth Science

Agriculture Core Courses 25 hrs

AGR 099 Freshman Orientation
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture
AGR 250 Soil Science
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I

Agronomy Option 24 hrs

AGR 240 Crop Science
AGR 455 Soil Management
AGR 470 Soil and Water Engineering
AGR 471 Applications in Precision Agriculture
AGR 542 Plant Breeding I
AGR 546 Integrated Pest Management
AGR 547 Crop Management
AGR 549 Weeds and Their Control

Required Support Courses 13 hrs

Choose one of the following support course emphases.

Sales/Production Emphasis

AGR 251 Soil Science Laboratory
AGR 330 Principles of Agribusiness
or
AGR 433 Farm Management
AGR 333 Agribusiness Records and Analysis
AGR 336 Agricultural Marketing and Price Analysis
or
AGR 337 Agricultural Sales and Merchandising
AGR 377 Agriculture Safety

Research Emphasis

AGR 233 Statistics for Food and Agriculture
AGR 251 Soil Science Laboratory
BIO 300 Introductory Microbiology
Agronomy advisor approved research electives: 5 hrs

Unrestricted Electives 11 hrs

Total Curriculum Requirements 120 hrs

AREA:

Agricultural Science/Horticulture Option

Bachelor of Science in Agriculture Degree CIP 01.0000

University Studies Requirements 46 hrs

(see Chapter 4, University Studies Requirements)

University Studies selections must include:

•*Communication and Basic Skills:*

COM 161 Introduction to Public Speaking

•*Science and Mathematics:*

BIO 222 Botany: Plant Form and Function

CHE 101 Consumer Chemistry

or

CHE 105 Introductory Chemistry I

MAT 140 College Algebra

•*University Studies Electives:*

CHE 106 Introductory Chemistry II

or

GSC 199 Earth Science

Agriculture Core Courses 25 hrs

AGR 099 Freshman Orientation
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture
AGR 250 Soil Science
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I

Horticulture Option 24 hrs

AGR 160 Horticultural Science
AGR 263 Woody Plant Materials I
AGR 360 Greenhouse Production and Management
AGR 363 Woody Plant Materials II
AGR 365 Herbaceous Plant Materials

AGR 461 Plant Propagation
 AGR electives: 6 hrs
 and one of the following:
 AGR 367 Residential Landscape Design
 AGR 462 Fine Turf Management
 AGR 563 Arboriculture

Unrestricted Electives 25 hrs

Total Curriculum Requirements 120 hrs

MAJOR:
Agricultural Science

Bachelor of Science/Bachelor of Arts Degree
CIP 01.0000

University Studies Requirements 46-58 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

- Communication and Basic Skills:*
 COM 161 Introduction to Public Speaking
- Science and Mathematics:*
 BIO 101 Biological Concepts
 or
 BIO 222 Botany: Plant Form and Function
- CHE 105 Introductory Chemistry I
 MAT 140 College Algebra
- University Studies Electives:*
 CHE 106 Introductory Chemistry II

Agriculture Core Courses 37 hrs
 AGR 099 Freshman Orientation
 AGR 100 Animal Science
 AGR 130 Agricultural Economics
 AGR 133 Field Applications for Agriculture
 AGR 140 Plant Science
 AGR 170 Introduction to Agricultural Systems Technology
 AGR 199 Contemporary Issues in Agriculture
 AGR 250 Soil Science
 AGR 339 Computer Applications for Agriculture
 AGR 399 Professional Development Seminar I
 AGR electives: 12 hrs

Required Minor 21 hrs

Unrestricted Electives 4-16 hrs

Total Curriculum Requirements 120 hrs

ASSOCIATE:
Agricultural Science and Technology

Associate of Science Degree
CIP 01.0000

University Studies Requirements 20 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

- Science and Mathematics:*
 BIO 101 Biological Concepts
 or

CHE 105 Introductory Chemistry I
 or
 PHY 120 General Physics I
 MAT 140 College Algebra

Agriculture Core Courses 44 hrs
 AED 380 Agricultural Education, Extension, and Leadership
 AGR 099 Freshman Orientation
 AGR 100 Animal Science
 AGR 130 Agricultural Economics
 AGR 133 Field Applications for Agriculture
 AGR 140 Plant Science
 AGR 170 Introduction to Agricultural Systems Technology
 AGR 199 Contemporary Issues in Agriculture
 AGR 250 Soil Science
 AGR 339 Computer Applications for Agriculture
 AGR 399 Professional Development Seminar I
 AGR electives: 16 hrs

Total Curriculum Requirements 64 hrs

Agriculture Minor 21 hrs
 Program must be approved by an advisor with at least six hours of level 300 or above completed at Murray State. Six hours must be upper-level courses completed in residence at Murray State University.

**Department of Animal and
 Equine Science**
 212 Oakley Applied Science South
 270-809-3327

Head: James Davis. **Faculty:** Barnett, Davis, Delaney, Robertson, Robinson, Van Hooser.

The Department of Animal and Equine Science offers a bachelor of science in agriculture degree with two emphases: (1) food animal emphasis and (2) equine science emphasis. The department also offers a minor in equine science. Career preparations include the scientific study of feeding, breeding, management and marketing of animals and their products along with the multitude of related businesses and industries.

Facilities for animal and equine science include an equine center, rodeo facilities, and a beef cattle complex including a registered Angus herd and stocker calf intensive grazing systems.

AREA:
**Animal Technology/
 Animal/Equine Science Option**

Bachelor of Science in Agriculture Degree
CIP 51.0808

University Studies Requirements 46-48 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

- Communication and Basic Skills:*
 COM 161 Introduction to Public Speaking
- Science and Mathematics:*
 BIO 101 Biological Concepts

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or

BIO 221 Zoology: Animal Form and Function
MAT 140 College Algebra

and one of the following:

CHE 101 Consumer Chemistry
CHE 105 Introductory Chemistry I
CHE 201 General College Chemistry

•*University Studies Electives:*

AGR 199 Contemporary Issues in Agriculture

and one of the following:

CHE 106 Introductory Chemistry II
CHE 202 General Chemistry and Qualitative Analysis
GSC 101 The Earth and the Environment
GSC 102 Earth Through Time
GSC 199 Earth Science

Agriculture Core Courses 28-30 hrs

AGR 099 Freshman Orientation
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 140 Plant Science
AGR 170 Introduction to Agricultural Systems Technology

or

AGR 377 Agriculture Safety
AGR 300 Principles of Animal Nutrition
AGR 310 Applications in Animal Technology
AGR 339 Computer Applications for Agriculture

and two of the following:

AGR 302 Horse Science
AGR 311 Beef Science
AGR 312 Dairy Science
AGR 321 Poultry Science
AGR 325 Small Animal Science
AGR 326 Swine Science
BIO 330 Principles of Ecology
BIO 538 Animal Behavior

Required Support Courses 24 hrs

Choose one of the following support course emphases.

Food Animal Emphasis

AGR 133 Field Applications for Agriculture
AGR 250 Soil Science
AGR 399 Professional Development Seminar I

and three of the following:

AGR 501 Diseases of Livestock
AGR 502 Advanced Nutrition
AGR 503 Animal Breeding
AGR 506 Reproductive Physiology
AGR 523 Artificial Insemination Techniques for Cattle
AGR electives (animal science): 9 hrs

Equine Science Emphasis

AGR 101 Basic Horsemanship
AGR 133 Field Applications for Agriculture
AGR 201 Intermediate Horsemanship
AGR 250 Soil Science
AGR 303 Advanced Horse Science
AGR 399 Professional Development Seminar I
AGR 401 Equine Breeding and Management

and one of the following:

AGR 304 Advanced Stock Seat
AGR 306 Advanced Forward Seat

and one of the following:

AGR 405 Breaking and Training
AGR 407 Equine Selection and Evaluation

Unrestricted Electives 18-22 hrs

Total Curriculum Requirements 120 hrs

Equine Science Minor 21 hrs

Program must be approved by an advisor and include nine hours of required courses (AGR 302, 303 and 401). Six hours must be selected from AGR 101, 201, 304 and 306. Six hours must be upper-level courses completed in residence at Murray State University.

Department of Animal Health Technology and Pre-Veterinary Medicine

A. Carman Animal Health Technology Center
270-809-7001

Head: Terry Canerdy. **Faculty:** Canerdy, Papajeski, Provine, Watson, West.

The Animal Health Technology Program at Murray State University is one of only 14 schools in the nation that offers a fully accredited bachelor of science degree in the area of animal health. Students are also given the option to complete the prerequisite courses required by any of the twenty-seven veterinary schools in the U.S. The program involves hands-on experience with many animal species including small, large, and exotic animals. The program has been continually accredited by the American Veterinary Medical Association (AVMA) since 1986. Facilities for the animal health/pre-veterinary medicine program include classrooms and laboratories at the A. Carman Animal Health Technology Center and the university farms.

A portion of the animal health technology and pre-veterinary curriculum will involve students taking courses, which have been labeled the BVC (Breathitt Veterinary Center) courses. The BVC courses include AGR 340, AGR 380, AGR 400, AGR 410, AGR 420, and AGR 430. BVC courses must be taken together in one semester. Because the animal health technology/pre-veterinary program is an accredited program, available space is limited to ensure the quality of instruction. Registration in BVC courses is based on available openings. The animal health technology program will make every effort to ensure that students who need BVC courses will be placed, but no guarantee is made that the student will be enrolled during the preferred semester. Applications are due February 1st for the fall term and September 1st for the spring term. Once completed applications are reviewed, students will be notified of their placement into BVC courses by March 1st for the fall semester and October 1st for the spring semester.

The following prerequisites are required for the BVC classes: AGR 300, AGR 322, AGR 329, BIO 101 or 221, CHE 105 or 201, CHE 106 or 202. The student must have a passing grade in these courses before being considered. After the prerequisites have been evaluated, the following criteria will be reviewed in order to determine the student's placement into the BVC courses:

- Completed applications were submitted by the appropriate deadline.
- BVC courses are the ONLY classes remaining.

- BVC courses plus one other course are the only classes remaining.
 - Unavoidable course conflicts will be evaluated on a case by case basis.
 - Once the placed students are enrolled any space available will be given to students on a first come basis.
- Any student who receives an *E* in any BVC course, will only be able to repeat the course if space is available.

AREA:
**Animal Technology/
 Veterinary Technology Option**

**Bachelor of Science in Agriculture Degree
 CIP 51.0808**

ACCREDITED BY:
 American Veterinary Medical Association

University Studies Requirements 46-48 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

•*Communication and Basic Skills:*

COM 161 Introduction to Public Speaking

•*Science and Mathematics:*

BIO 101 Biological Concepts

or

BIO 221 Zoology: Animal Form and Function

CHE 105 Introductory Chemistry I

or

CHE 201 General College Chemistry

MAT 140 College Algebra (or higher)

•*University Studies Electives:*

AGR 199 Contemporary Issues in Agriculture

CHE 106 Introductory Chemistry II

or

CHE 202 General Chemistry and Qualitative Analysis

Agriculture Core Courses 28-30 hrs

AGR 099 Freshman Orientation

AGR 100 Animal Science

AGR 130 Agricultural Economics

AGR 140 Plant Science

AGR 170 Introduction to Agricultural Systems Technology

or

AGR 377 Agriculture Safety

AGR 300 Principles of Animal Nutrition

AGR 310 Applications in Animal Technology

AGR 339 Computer Applications for Agriculture

and two of the following:

AGR 302 Horse Science

AGR 311 Beef Science

AGR 312 Dairy Science

AGR 321 Poultry Science

AGR 325 Small Animal Science

AGR 326 Swine Science

BIO 330 Principles of Ecology

BIO 538 Animal Behavior

Veterinary Technology Option¹ 28 hrs

AGR 322 Veterinary Laboratory Principles

AGR 329 Veterinary Hematology and Microbiology

AGR 331 Small Animal Diseases

AGR 332 Animal Nursing and Radiography

AGR 340 Veterinary Laboratory Sciences

AGR 410 Advanced Veterinary Hematology

AGR 420 Veterinary Clinical Chemistry

AGR 430 Veterinary Parasitology

AGR 510 Animal Anatomy and Physiology

Required Support Courses 25-26 hrs

Choose one of the following support courses emphases:

Animal Health Technology Emphasis

AGR 380 Veterinary Laboratory Rotation

AGR 399 Professional Development Seminar I

AGR 400 Veterinary Microbiology¹

AGR 501 Diseases of Livestock¹

AGR 506 Reproductive Physiology

AGR 511 Animal Anatomy and Physiology Laboratory¹

AGR 540 Veterinary Surgery and Anesthesia¹

AGR 550 Applied Pharmacology¹

AGR 590 Internship in Animal Technology¹

Zoological Animal Health Technology Emphasis

AGR 380 Veterinary Laboratory Rotation

AGR 399 Professional Development Seminar I

AGR 400 Veterinary Microbiology¹

AGR 501 Diseases of Livestock¹

AGR 511 Animal Anatomy and Physiology Laboratory¹

AGR 540 Veterinary Surgery and Anesthesia¹

AGR 550 Applied Pharmacology¹

AGR 489 Cooperative Education/Internship

or

AGR 590 Internship in Animal Technology¹

and one of the following:

BIO 570 Ichthyology

BIO 572 Herpetology

BIO 573 Ornithology

BIO 574 Mammalogy

Total Curriculum Requirements 127-132 hrs

¹Required by American Veterinary Medical Association for certification.

AREA:

**Animal Technology/Veterinary Technology/
 Pre-Veterinary Medicine Option**

**Bachelor of Science in Agriculture Degree
 CIP 51.0808**

ACCREDITED BY:
 American Veterinary Medical Association

University Studies Requirements 46-52 hrs
 (see Chapter 4, University Studies Requirements)

University Studies selections must include:

•*Communication and Basic Skills:*

COM 161 Introduction to Public Speaking

•*Science and Mathematics:*

BIO 101 Biological Concepts

or

BIO 221 Zoology: Animal Form and Function

CHE 201 General College Chemistry

MAT 150 Algebra and Trigonometry

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•Social Sciences:

PSY 180 General Psychology

•University Studies Electives:

CHE 202 General Chemistry and Qualitative Analysis

SOC 133 Introduction to Sociology

Agriculture Core Courses 28-30 hrs

AGR 099 Freshman Orientation

AGR 100 Animal Science

AGR 130 Agricultural Economics

AGR 140 Plant Science

AGR 170 Introduction to Agricultural Systems Technology

or

AGR 377 Agriculture Safety

AGR 300 Principles of Animal Nutrition

AGR 310 Applications in Animal Technology

AGR 339 Computer Applications for Agriculture

and two of the following:

AGR 302 Horse Science

AGR 311 Beef Science

AGR 312 Dairy Science

AGR 321 Poultry Science

AGR 325 Small Animal Science

AGR 326 Swine Science

BIO 330 Principles of Ecology

BIO 538 Animal Behavior

Pre-Veterinary Medicine Option² 28 hrs

AGR 322 Veterinary Laboratory Principles

AGR 329 Veterinary Hematology and Microbiology

AGR 331 Small Animal Diseases

or

AGR 501 Diseases of Livestock

AGR 332 Animal Nursing and Radiography

AGR 340 Veterinary Laboratory Sciences

AGR 410 Advanced Veterinary Hematology

AGR 420 Veterinary Clinical Chemistry

AGR 430 Veterinary Parasitology

AGR 510 Animal Anatomy and Physiology

Required Support Courses³ 34-37 hrs

AGR 380 Veterinary Laboratory Rotation

AGR 399 Professional Development Seminar I

AGR 400 Veterinary Microbiology

AGR 489 Cooperative Education/Internship

or

AGR 590 Internship in Animal Technology

BIO 221 Zoology: Animal Form and Function

CHE 310 Organic Chemistry I

CHE 315 Organic Chemistry I Laboratory

CHE 320 Organic Chemistry II

PHY 130 General Physics I

PHY 132 General Physics II

and one of the following:

AGR 502 Advanced Nutrition

CHE 330 Biochemistry

CHE 530 Fundamentals of Biochemistry

Total Curriculum Requirements 136-147 hrs

¹Students accepted into veterinary school after three years are required to fulfill 12 hours in the social science and humanities area for graduation.

²Required by the American Veterinary Medical Association for certification.

³Required for entrance to veterinary colleges.